

AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough; and 2. added matter is shown by underlining.

1-14. (Cancelled).

Please add new claims 15-28 as follows:

15. (New) A method for the spatially perceptible representation of a scene or a subject to a viewer, in which several individual picture elements (α_{ij}) are made visible simultaneously in a matrix with j lines and i columns, comprising:

- displaying α_{ij} picture elements in a matrix, including partial information from several views (A_k , where $k=1 \dots n$) of the scene or the subject;
- interposing a structural plate before the matrix having several optical elements arranged in series to control propagation directions of light radiated from the α_{ij} picture elements such that the propagation directions within a viewing area, in which the viewer is located, intersect at a plurality of intersections, with each intersection corresponding to a viewing position;

- whereby from each viewing position the viewer visually perceives with one eye the partial information of a first selection and with the other eye visually perceives the partial information of a second selection from the A_k views ($k=1 \dots n$);

- wherein an average geometrical distance p between two adjacent series of light-transmitting optical elements on the structural plate, fulfills the condition $p' \leq p$, in which $p=G * \sin(0.017^\circ)$, and where G is about four times a diagonal length of the α_{ij} picture elements matrix.

16. (New) The method as recited in claim 15, wherein an average geometrical distance p' between two adjacent series of light-transmitting optical elements on the structural plate, fulfills the condition $p' \leq p''' \leq p$, in which $p''' = H * \sin(0.017^\circ)$, and where H is about two-and-one-half times a diagonal length of the α_{ij} picture elements matrix.

17. (New) The method as recited in claim 15, in which the optical elements comprise a plurality of cylindrical lenses arranged in p columns and q rows.

18. (New) The method as recited in claim 15, in which the optical elements comprise a plurality of transparent filter elements arranged in a matrix with p columns and q rows, and the transparent filter elements are respectively located at least partially between substantially opaque filter elements.

19. (New) The method as recited in claim 15, in which the partial information of the first selection from the A_k views ($k=1 \dots n$), is visually perceived by the viewer with one eye and

the partial information of the second selections from the A_k views ($k=1 \dots n$) is visually perceived with the other eye and the partial information corresponds to one or several A_k views ($k=1 \dots n$), whereby the viewer perceives with each eye corresponding inclusive or exclusive partial information associated with the first and second selections.

20. (New) The method as recited in claim 19, wherein the viewing area in which the viewer is located, includes at least a level, which

- are oriented in a forwards viewing direction, and
- are substantially parallel to the α_{ij} picture elements matrix, and
- are located at a distance of about 2.5 to about 4 times the diagonal length of the matrix.

21. (New) The method as recited in claim 15, wherein at least one α_{ij} picture element displays partial information from at least two different A_k views ($k=1 \dots n$) of the scene subject mixed partial information.

22. (New) A device for spatially perceptible representation of an image by a viewer, comprising:

- an image rendering device having a plurality of individual α_{ij} picture elements in a matrix with j lines and i columns in a matrix, in which the α_{ij} picture elements reproduce partial information from several A_k views ($k=1 \dots n$) of the image;

- at least one structural plate arranged in a viewing direction before or behind the image rendering mechanism having several optical elements arranged in series to control the propagation directions for light radiated from the α_{ij} picture elements;
- such that the propagation directions within the viewing area in which the viewer is located, intersect at a plurality of intersections, each intersection corresponding to a viewing position, so that a viewer visually perceives, for each viewing position, with one eye partial information of a first selection, and with the other eye partial information of a second selection from the A_k views ($k=1 \dots n$);
- wherein the average geometrical distance p between two adjacent series of light-transmitting optical elements on the structural plate, fulfills the condition $p' \leq p$, in which $p = G * \sin (0.017^\circ)$ and where G is about four times the diagonal length of the α_{ij} picture elements matrix.

23. (New) The device as recited in claim 22, wherein the average geometrical distance p' between two adjacent series of light-transmitting optical elements on the structural plate, fulfills the condition $p' \leq p''' \leq p$, in which $p''' = H * \sin (0.017^\circ)$, where H is about two-and-one-half times the diagonal length of the α_{ij} picture elements matrix.

24. (New) The device as recited in claim 22, wherein the optical elements comprise cylindrical lenses arranged in a matrix with p columns and q lines.

25. (New) The device as recited in claim 22, wherein the optical elements comprise transparent filter elements arranged in p columns and q lines and substantially opaque filter elements, and wherein the transparent filter elements on the structural plate are located at least partially between the substantially opaque filter elements.

26. (New) The device as recited in claim 22, wherein the partial information of the first selection which the viewer can visually perceive with one eye from the A_k views ($k=1 \dots n$) and the second selection which the viewer can visually perceive from the A_k views ($k=1 \dots n$) with the other eye, correspond respectively to the partial information of one or several A_k views ($k=1 \dots n$), wherein the viewer perceives with each eye, substantially exclusively, the partial information for the first and second selections.

27. (New) The device as recited in claim 26, wherein the viewing area in which the viewers are placed includes at least a level, which

- are oriented in a forwards viewing direction, and
- are substantially parallel to the α_{ij} picture elements matrix, and
- are respectively located at a distance of about 2.5 to about 4 times a diagonal length of the matrix.

28. (New) The device as recited in claim 22, wherein at least the reproduced partial information on one α_{ij} picture element is mixed partial information from at least two different A_k views ($k=1 \dots n$) of the scene/subject.